

IT PROJECT MANAGEMENT: TRADITIONAL SDLC AND AGILE

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IT projects are well known for its high rate of failure. According to [1] only 29% of projects were successful. It means that they were on time, on budget and with a satisfactory result. In the same time 19% of projects are failed, i.e. they do not meet the above conditions. The main risk factors for software development are considered as follows: unrealistic schedule; unrealistic budget; uncertain project functionality; inaccurate, unclear and/or incomplete requirements; and impossibility of changing the requirements. The main part of the above-mentioned factors is in some way connected to two main reasons: insufficient customer involvement in the software development process and the wrong choice of methodology for developing an IT project in one way or another.

Currently there are two main directions in the development of IT projects: traditional Software Development Life Cycle (SDLC) and Agile methodologies. SDLC includes waterfall, V-model, incremental, iterative, spiral models, as well as RAD (Rapid Application Development). Despite certain differences in application, all of these models can be applied to projects with strictly defined requirements for the developed software of varying degrees of scale.

Agile is a group of methodologies based on the principles of the *Agile Manifesto* [2]. Agile methodologies include Extreme Programming (XP), Dynamic Systems Development Method (DSDM), Lean, Scrum, Kanban and others.

The main principles of Agile are: a humanistic approach and focus on people and the interaction between them; focus on the final product, rather than project documentation; constant collaboration with the customer and willingness to make changes even in the later stages of the project; work in short cycles, each ends with the release of a working product version. According to statistics [3], agile projects are twice as likely to be successful and three times less likely to be failed than SDLC projects, however, agile methods more often used for small projects.

1. Q&A: How to position an IT department for success in 2020 [Электронный ресурс] : [Веб-сайт]. – Режим доступа: <http://www.digitaljournal.com/business/q-a-how-to-position-an-it-department-for-success-in-2020/article/565618> (дата звернення 15.03.2020).

2. Manifesto for Agile Software Development [Электронный ресурс] : [Веб-сайт]. – Режим доступа: <https://agilemanifesto.org> (дата звернення 15.03.2020)

3. Agile Project Success Rates are 2X Higher than Traditional Projects (2019) [Электронный ресурс] : [Веб-сайт]. – Режим доступа: <https://vitalitychicago.com/blog/agile-projects-are-more-successful-traditional-projects> (дата звернення 15.03.2020)